

DAVID AN

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EDUCATION

University of Illinois at Urbana-Champaign
B.S. Applied Mathematics

Expected Dec. 2023
GPA: 3.93/4.00

Westmoreland County Community College
Associate of Applied Science in Computer Science (Honors)

2018 - 2020
GPA: 3.57/4.00

PROJECTS

Academic Literature Data Mining

January 2022 - Present

University of Connecticut, Supervised by Emiliano Valdez

- Used Python to scrape data from various sources of academic literature such as ScienceDirect and Google Scholar
- Processed and cleaned datasets using different data imputation methods as well as NLTK keyword extraction

Natural Language Powered Repository for Cyber Risk Literature

January 2022 - Present

Illinois Risk Lab, Supervised by Linfeng Zhang

- Gathered sources of literature and scraped various articles from databases such as arXiv using different APIs
- Researched methods of full text searching as well as text relevancy and indexing to implement in Python
- Formulated and developed automatic document labelling techniques for the document corpus

Fake News Detection with Long Short-Term Memory and Attention

August 2020 - May 2021

- Conducted a year-long independent study under the supervision of a teacher for AP Research
- Designed an experimental model using Python and scikit-learn which had a 3% increase over standard models used in text classification
- Studied the effect of the Bahdanau Attention Mechanism on natural language processing systems and the effects of spatial attention on overall classification accuracy

Defeating the Digital Divide (2021 M3 Modeling Competition)

May 2021

- Developed solutions to three modeling questions with provided data in a 14 hour challenge
- Created a model with Excel and R to estimate the average data usage of certain populations and model cell tower placements in the United States
- Delivered a 15-page technical project report at the end of the competition as a final deliverable

WORK EXPERIENCE

American Supply Association

Business Analyst

Champaign, IL

October 2021 - Present

- Developed evaluations for best inventory management software practices for plumbing and HVAC contractors
- Studied distributor and contractor behavior and relationships in the plumbing industry
- Reached out to various distributors and contractors in the region to understand current supply chain issues

Illini EV Concept

Embedded Systems Developer

Urbana, IL

August 2021 - January 2022

- Designed a CAN interface to send and receive CAN packets using the MCP2515 Chip and Arduinos using C++
- Updated the current CAN bus protocol to increase communication efficiency between different subsystems
- Implemented and visualized different Simultaneous Localisation and Mapping (SLAM) scenarios using rviz